

**CLAIMS:**

1. A method of providing services of an application comprising:  
providing a plurality of network interfaces;  
providing a at least one of a plurality of CPU's;  
running an instance of the application for each one of the plurality of network interfaces;  
designating each instance of said application to each one of said plurality of CPU's; and  
assigning each of the plurality of network interfaces to a designated CPU whereby each designated network interface application instance of each one of the plurality of network interfaces is handled solely by the designated CPU.
2. A method as recited in claim 2 wherein the providing services of an application further comprises providing services of an application in a multiple CPU environment.
3. A method as recited in claim 3, wherein said method further comprises:  
assigning a network address to each one of the plurality of network interfaces.
4. A method as recited in claim 3, wherein said network address is an Internet Protocol (IP) address.
5. A method as recited in claim 3, wherein said running of an instance of said application for each one of said plurality of network interfaces comprises:  
initiating a listener that listens for the network address that is assigned to a network interface.
6. A method as recited in claim 5, wherein said method further comprises:

providing a processing queue for each of the plurality of CPU's;

assigning a processing queue to each one of the plurality of CPUs, wherein said processing queue provides single threaded processing of data related to an instance of the application.

7. A method as recited in claim 6 wherein the processing queue is a sequential queue (s-queue).

8. A method as recited in claim 6, wherein said single thread is uninterrupted while processing the application instance.

9. A method as recited in claim 1, wherein said designating of a CPU for processing each of one of said instances of said application and said designating of each instance of said application to one of said plurality of network interfaces is performed automatically by an operating system.

10. A computer system comprising:

a plurality of network interfaces;

a plurality of CPU's wherein each of the plurality of network interfaces is assigned to one of the plurality of CPU's; and

a plurality of instances of an application such that each instance is assigned to one of CPU's for processing each one of said plurality of instances.

11. A computer system as recited in claim 10, wherein for each network interface, data related to each instance of the application is provided and processed by the assigned CPU

12. A computer system as recited in claim 10, wherein said application data is stored in a cache of the CPU that is assigned to the network interface.

13. A computer system as recited in claim 10, wherein said computer system further comprises:

a plurality of queues, each queue associated with a CPU of said plurality of CPU's.

14. A computer system as recited in claim 13, wherein said computer system further comprises:

a connection data structure arranged to contain information for routing packets of an instance through a connection of one of the plurality of network interfaces to a queue of said plurality of queues for processing said packets of said same connection by a same CPU of the plurality of CPU's.

15. A computer system as recited in claim 13, wherein said connections are TCP connections.

16. A computer system as recited in claim 15, wherein a CPU of the plurality of CPU's processes a packet of its queue without interruption through said plurality of protocol layers except for scheduling another packet on its queue.

17. A computer system comprising:

a plurality of instances of an application;

a plurality of CPU's for processing each one of said plurality of instances;

a plurality of network interfaces for a plurality of network connections to said computer system;

an operating system, wherein said operating system is configured to:

automatically designate a CPU for processing each of one of said instances of said application; and

automatically designate each of the plurality of network interfaces to one of the plurality of CPU's, thereby assigning each one of the network interfaces to an instance of said application.

18. A computer system recited in claim 17, wherein for each network interface, data related to each instance of said application is provided and processed by the CPU that is designated to said network interface, thereby allowing each instance of said application and data related to each instance to be available to the CPU.

19. A computer readable media including computer program code for providing services of an application in a multi-CPU environment, said computer readable media comprising:

computer program code for providing a plurality of network interfaces that can be used by a plurality of components to gain access to said services via a plurality of network connections;

computer program code for designating a CPU for each one of said plurality of network interfaces;

computer program code for running an instance of said application for each one of said plurality of network interfaces;

computer program code for designating a CPU for processing each of one of said instances of said application.

20. A computer readable media as recited in claim 19, wherein for each network interface, data related to each instance of said application is provided and processed by the CPU that is designated to said network interface, thereby allowing each instance of said application and data related to each instance to be available for each CPU.

21. A computer readable media as recited in claim 20, wherein said computer readable media further comprises:

computer program code for assigning a network address to each one of said plurality of network interfaces.

22. A computer readable media as recited in claim 21, wherein said network address is an Internet Protocol (IP) address.

23. A computer readable media as recited in claim 22, wherein said computer readable media further comprises:

computer program code for initiating a listener that listens to a network address that is assigned to a network interface.

24. A computer readable media as recited in claim 23, wherein said network address is an Internet Protocol (IP) address.

25. A computer readable media as recited in claim 22, wherein said computer readable media further comprises:

computer program code for assigning a processing queue to each one of said plurality of CPUs, wherein said processing queue provides single threaded processing of data related to an instance of data.

26. A computer readable media as recited in claim 25, wherein said single thread is uninterrupted while accessing said data related to an instance of the application.

27. A computer readable media as recited in claim 26, wherein said designating of a CPU for processing each of one of said instances of said application and said designating of each of said plurality of network interfaces to one of the plurality of CPU's is performed automatically by an operating system.